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November 28, 1995

BY HAND DELIVERY

Policy and Rules Division
Mass Media Bureau
Federal Communications Commission
1919 M Street, N.W.
Washington, D.C. 20554

Re: MM Docket No. 87-268
Report No. DC 95-129

Ladies and Gentlemen:

On behalf of TELE-TV and Edward Grebow, we submit the following ten copies of written testimony to be given at the FCC's En Banc Hearing on Digital Television to be held on Tuesday, December 12, 1995, and to be considered in the ongoing Fourth Further Notice of Proposed Rulemaking and Third Notice and Inquiry, adopted July 28, 1995.

If further information is necessary, please do not hesitate to contact me.

Very truly yours,

George Vradenburg /JGH

George Vradenburg III
of LATHAM & WATKINS

Enclosures

Before the

FEDERAL COMMUNICATIONS COMMISSION

Washington, D.C. 20544

In the Matter of	)	
	)	
Advanced Television Systems	)	MM Docket No. 87-268
and Their Impact Upon the	)	Report No. DC 95-129
Existing Television Broadcast	)	
Service; En Banc Hearing on	)	
Digital Television	)	

TESTIMONY OF EDWARD GREBOW, PRESIDENT OF TELE-TV SYSTEMS

George Vradenburg III
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1001 Pennsylvania Avenue, N.W.
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November 28, 1995

EXECUTIVE SUMMARY

TELE-TV is a partnership formed by subsidiaries of Bell Atlantic, NYNEX and the Pacific Telesis Group. TELE-TV announced in October 1994 its intention to offer a wide range of advanced television programming, consisting of both "traditional" channels as well as communications and interactive capabilities. It will launch by the end of 1996 through digital wireless technology and hybrid fiber-coax cable and on switched digital (fiber-to-the-curb) systems to be deployed by TELE-TV's partners beginning in 1997.

TELE-TV promises a new generation of television, offering not only unequalled breadth, diversity and quality, but also interactivity and interconnectivity available today only in the telephone environment. TELE-TV thus represents a convergent blending of the best of telephony, computing and television.

In TELE-TV's view, digital television represents a dramatic departure from the past and requires a fresh look at policies designed for an analog world.

First, the Commission should continue its policy of promoting High Definition Television in the broadcasting media. It should do so by encouraging broadcasters, within constitutional limits, to offer a minimum amount of High Definition content.

There are several sound public interest reasons for such an approach: the public interest in assuring technical excellence in the broadcasting service, the public interest in stimulating the marketplace for new and innovative HDTV digital TV sets and the public interest in avoiding confusion between SDTV and HDTV standards.

Second, the Commission should not mandate the carriage or processing by competing media of any "ancillary or supplementary" service offered by broadcasters that is not related to free over-the-air broadcasting.

Should broadcasters make the judgment to use new digital technology outside the free over-the-air field, in subscriber-supported or non-broadcast fields such as data, paging or voice services, they lose their unique and powerful public interest arguments. Like any other competitor, their carriage arrangements in those services should be worked out in marketplace negotiations.

Third, the Commission should continue its policy of not requiring other media to utilize transmission schemes compatible with the Grand Alliance HDTV System, or setting specific signal or equipment standards for this purpose. Specifically, the Commission should not take any steps to impose mandatory standards or other regulatory constraints on the wide range of innovative proprietary set-top boxes now being introduced into the marketplace. Such a policy avoids actions that might inhibit the rapid innovation of digital technology in non-broadcast media.

These points are made in the context and on the assumption, that the Commission continues the policy course set in this proceeding of administratively allocating and assigning an additional 6MHz of spectrum to existing broadcasters for use as a transition to digital broadcasting.

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service; En Banc Hearing on Digital Television	)	MM Docket No. 87-268 Report No. DC 95-129

TESTIMONY OF EDWARD GREBOW, PRESIDENT OF TELE-TV SYSTEMS

DECEMBER 12, 1995

Good morning, Mr. Chairman and members of the Federal Communications Commission.

My name is Edward Grebow, and I am President of TELE-TV Systems. I want to thank the Commission for the opportunity to present my views and those of TELE-TV Systems on the subject of Advanced Television.

As a leading proponent of advanced broad-band television systems, it is fitting and appropriate that the first comment in any Commission proceeding to be made by TELE-TV should be made in the Commission's proceeding on Advanced Television Systems.

I thought it might be useful to begin my testimony this morning with some background on TELE-TV and on our own plans to introduce advanced television. After doing so, I will offer my views on the policy perspectives TELE-TV believes should guide the Commission as this nation's communications and telecommunications infrastructure begins the enormous but exciting challenge of converting to digital technology.

INTRODUCTION

First, by way of background.

TELE-TV is a partnership formed by subsidiaries of Bell Atlantic, NYNEX and the Pacific Telesis Group. We announced in October 1994 our intention to offer a wide range of advanced television programming, consisting of both "traditional" channels as well as communications and interactive capabilities. We will launch by the end of 1996 through digital wireless technology and hybrid fiber-coax cable, and roll out as well on switched digital (fiber to the curb) technologies to be deployed by TELE-TV's partners beginning in 1997.

TELE-TV promises a new generation of television, offering this nation not only a breadth, diversity and quality of digital television far beyond that available today, but also a form of interactivity and interconnectivity available today only in the telephone environment. TELE-TV thus represents a convergent blending of the best of telephony, computing and television.

It therefore will come as no surprise to the Commission that TELE-TV is a champion of advanced digital television. TELE-TV enthusiastically supports the Commission's efforts to foster this exciting new technology.

BENEFITS OF DIGITAL TELEVISION

The potential benefits of digital television are well known and require little advocacy here.

Digital television promises both more and better television service: more television because of the remarkable capability of digital compression to deliver more "channels" of so-

called "Standard Definition Television"; and better television because digital capabilities permit both 35mm motion picture quality High Definition Television and artifact-free digital picture quality even in Standard Definition signals.

Perhaps even more significant, however, is the promise of advanced digital television to offer new computer-aided functions as well as superior picture quality: interactivity, point-to-point switched connectivity and advanced graphics navigation tools promise an entirely new dimension to how we use television in our homes.

THE NEW DIGITAL MARKETPLACE

As the Commission knows, several competing media are introducing, or soon will introduce, digital television into the marketplace, including Direct Broadcast Satellite services, MMDS, cable television, and telco wired systems.

In order to compete in this digital marketplace, broadcasters must have the opportunity to convert to digital television lest they become an analog artifact in a digital world. Most Americans continue to rely on broadcast television for much of their viewing, and until broadcast television converts to digital service, most Americans will not purchase new digital television receivers. Only with the economies of scale in digital receiver manufacturing generated by broadcaster conversion to digital broadcasting will digital television become a reality for all Americans.

For this reason, TELE-TV urges the Commission to adopt a policy directed toward conversion to digital broadcasting as that marketplace develops.

PERSPECTIVES ON DIGITAL POLICIES

Next, I want to turn to the policy orientation that we would urge the Commission to take toward advanced television. In our view, digital television represents a dramatic departure from the past and requires a fresh look at Commission policies designed in an analog world.

As the Commission may know, until recently I was the Executive Vice President, Operations of CBS Inc. I served in that capacity from 1987 to earlier this year. Thus, I bring to this subject a perspective developed over the course of nearly eight years as a broadcaster.

There are three major points I want to make today: first, the Commission should maintain its policy of promoting High Definition Television in the digital broadcasting environment; second, the Commission should not mandate the carriage or processing of any ancillary or supplementary service not related to free, over-the-air broadcasting; and, third, the Commission should not take any steps to impose mandatory standards or other regulatory limits on the wide range of proprietary set-top boxes now being introduced into the marketplace by non-broadcast media.

I make these points in the context, and on the assumption, that the Commission continues the policy course set in this proceeding of administratively allocating and assigning an additional 6MHz of spectrum to existing broadcasters for use as a transition to digital broadcasting.

HISTORY OF HDTV PROCEEDINGS

With that introduction, let me just touch on where we've been and where we are in the development of an advanced digital television custom designed for the broadcast environment.

Eight years ago, when this Commission started the process of inquiry into advanced television technologies, the primary concern of the Commission was the prospect that a Japanese-based HDTV analog technology called MUSE, not compatible with NTSC broadcast transmission, would be introduced by broad-band television systems, such as cable and DBS, and would obsolete the NTSC service offered by broadcasters.

Remarkably, within a relatively short time after the Commission started its Advisory Committee process, a number of companies came forward with broadcaster-friendly approaches to High Definition Television, all based on analog technologies. Then, in 1991, General Instrument Corporation proposed the first all-digital 6MHz HDTV transmission system. GI's announcement soon drove most other proponents to convert their proposals into all-digital systems designed for broadcast applications.

Since that time, the convergence of the best features of those competing systems has become the Digital HDTV Grand Alliance System. This system has continued to evolve over the last two years, reflecting continuing innovations and enhancements that have made it more powerful and flexible. We now know, for example, that the Grand Alliance System has the potential of accommodating multiple digital services of less-than-HDTV but better-than-NTSC quality. Just two weeks ago, the Commissions' Advisory Committee

recommended an ATSC standard embodying the Digital HDTV Grand Alliance System as this nation's digital broadcast standard.

This eight-year effort has been aimed at developing a digital transmission system and standard designed and customized for the 6MHz broadcast environment.

NON-BROADCAST INNOVATION IN DIGITAL TECHNOLOGIES

Innovations in the technologies of digital transmission, transport and compression are not confined, however, to the digital system designed for broadcasting by the Grand Alliance.

As I noted earlier, Hughes' DirecTV and Stanley Hubbard's USSB Direct Broadcast Satellite services are already in the marketplace, offering close to 200 channels of compressed digital service in a system of high-powered satellite and powerful home set-top boxes and receiving dishes.

The cable industry has ordered and will soon start deploying its competing home set-up boxes that will permit the decompression and delivery of hundreds of digital signals sent to the home through cable's infrastructure.

TELE-TV's partners -- NYNEX, Bell Atlantic and Pacific Telesis -- will introduce 120 channel digital TV service in 1996 through new wireless cellular systems. We have just selected Thompson Consumer Electronics to supply up to three million new proprietary set-top boxes to support the introduction of this new wireless service.

We at TELE-TV are in the early planning stage of an advanced, second-generation set-top box to support wire-based distribution architectures to be deployed by our partners over the next few years.

DIGITAL POLICIES

I recite these historic and recent developments, of which the Commission is no doubt aware, to emphasize three policies that TELE-TV would urge the Commission to endorse.

First, the Commission should continue its policy of promoting High Definition Television in digital broadcasting. It should do so by encouraging broadcasters, within constitutional limits, to offer a minimum amount of High Definition programming.

There seem to me to be several sound public interest reasons for such an approach: the public interest in assuring technical excellence in the broadcasting service, the public interest in stimulating the marketplace for new and innovative HDTV-ready TV sets and the public interest in avoiding confusion between SDTV and HDTV standards.

Each of those public interest goals has been articulated by the Commission in its prior decisions in this docket.

The Commission began its inquiry into advanced television technologies in 1987, having concluded that the NTSC transmission standard "suffer[ed] from a number of deficiencies that limit its video and audio quality". Notice of Inquiry, MM Docket No, 87-268, 2 FCC Rcd 5125, 5126 (1987). The Commission's inquiry into advanced television technologies was broadly directed at "any system(s) that improves television audio and video quality or enhances in any way the current NTSC system" including Improved NTSC, Extended Definition Television and High Definition Television. Id., at 5127. The Commission concluded in its First Report and Order that it would "select a 'simulcast' high definition television (HDTV) system" in this proceeding. First Report and Order, MM Docket No. 87-268, 5 FCC Rcd 5627 (1990).

The Commission's decision to focus on HDTV, rather than lesser quality EDTV and Improved NTSC systems was based on several principles: first, the Commission reiterated its "goal of ensuring excellence in ATV service", noting that EDTV "falls short of the audio and video quality offered by HDTV"; second, the Commission wished to avoid "interim standards for transitional systems and the costs of requiring later systems to be compatible with those systems"; third, The Commission wished to "speed HDTV implementation"; fourth, the Commission concluded that HDTV, rather than EDTV, would "provide consumers with the greatest degree of initial improvement in the quality of television picture and audio service"; and finally, the Commission concluded that its commitment to HDTV "will eliminate confusion for consumers about which type of receiver to purchase... [and thus] speed the growth of HDTV receiver penetration". Id., at 5628.

Each of these principles remains true today, simply substituting "SDTV" for "EDTV".

Absent a minimum HD commitment by broadcasters, there is significant risk that consumers will never have the opportunity to choose HDTV in the marketplace. Absent the assurance that some minimum HD content will be forthcoming, equipment manufacturers may not build circuitry into their receivers. Once it is clear that broadcasters will offer some HD content, however, receiver manufacturers will offer at least some models of TV sets with HDTV features.

As a result, I urge the Commission to continue its commitment to broadcast HDTV service by encouraging a minimum of HD content from broadcasters.

Second. The Commission should not mandate the carriage or processing by competing media of any "ancillary or supplementary" service offered by broadcasters that is not related to free, over-the-air broadcasting.

We acknowledge the powerful arguments for and against mandatory carriage requirements for broadcast signals. We do not take a position on whether such carriage requirements should be extended to digital broadcast of free over-the-air service. On that score, while we recognize a potential public interest rationale for such requirements, we would only point out that there may be some significant practical problems of technology and economics of automatically extending mandatory carriage requirements to those digital signals.

But should broadcasters make the judgment to use this new digital technology to compete outside the free over-the-air television field, for example, in subscriber-supported or non-broadcast (data, paging, voice) markets, they lose their unique public interest posture. In those services, they become just like any other competitor. That is not to say that other media may not choose to carry those broadcast signals and services, but only that carriage arrangements should be worked out in marketplace negotiations.

Third. The Commission should continue its policy of not requiring other media to utilize transmission schemes compatible with the Grand Alliance HDTV System, or setting specific signal or equipment standards for this purpose. Specifically, the Commission should not take any steps to impose mandatory standards or other regulatory constraints on the wide range of innovative proprietary set-up boxes now being introduced into the marketplace.

That policy here avoids any regulatory actions that might inhibit the rapid innovation of digital technology in non-broadcast media.

This has been the Commission policy to date in this proceeding.

In 1988, the Commission tentatively concluded that it was in the public interest not to require compatibility among the various media nor to set specific signal or equipment standards for non-broadcast media. Tentative Decision and Further Notice of Inquiry, MM Docket No. 87-268, 3 FCC Rcd 6520, 6537. Subsequently, the Commission determined not to restrict satellite ATV transmission to the standards set for terrestrial ATV or to set ATV standards for VCR's. Second Report and Order, Further Notice of Proposed Rulemaking, MM Docket No. 87-268, 7 FCC Rcd 3340 at 3361.

This hands-off approach to ATV standards for non-broadcast media has permitted a more rapid introduction of innovative digital technologies in direct broadcast satellite and, potentially, in wireless cellular and wire-based transmission systems. Each of those media has already introduced, or soon intends to introduce, advanced systems using customized transmission schemes supported by proprietary set-top boxes. That beneficial policy should continue, permitting each of those media, including TELE-TV, to respond to this rapidly evolving marketplace. The consumer should have a simple, seamless means for transitioning among program providers and media. The marketplace is the best regulatory mechanism for assuring that result.

CONCLUSION

In closing, we at TELE-TV want to take this opportunity to congratulate the Commission on the work it has so successfully overseen to date in this field. The Advisory Committee on Advanced Television Service is a perhaps uniquely successful effort at public-private cooperation in standards development, an effort whose success is the result of tens of thousands of volunteer hours of effort on the part of hundreds of dedicated individuals. I would personally take note of the leadership of ACATS Chairman, Dick Wiley, and of the consistent and sustained direction of this Commission over three different administrations.

And I want again to thank the Commission for the opportunity to present TELE-TV's views on this important subject.

EDWARD GREBOW

Edward Grebow is President of TELE-TV Systems, the unit of Tele-TV that will develop and deliver state-of-the-art technology products and services.

Prior to joining TELE-TV, he was Executive Vice President, Operations at CBS Inc. since May 1994. In that position he was responsible for Broadcast Operations and Engineering, Management Information Systems, Facilities, Personnel, Technology and general administration of CBS Inc. He also represented CBS on the Board of Directors of CBS Studio Center Inc.

Grebow had been Senior Vice President, Operations and Administration at CBS Inc., since February 1988. In that post, he received numerous awards for the purchase and restoration of the Ed Sullivan Theater for "Late Show with David Letterman."

He came to CBS in 1988 having been executive Vice President of the Bowery Savings Bank since 1985 with responsibilities that included Bank Operations, Data Processing, Personnel, Branch Operations and Expense Control. From 1972 to 1985 he was with Morgan Guaranty Trust Company. His positions during that time included Vice President, Management Information and Profit Analysis; Vice President, Chief Operating Officer of Morgan Bank (Delaware); Chair, Morgan Data Services and Vice President, J.P. Morgan Co. Inc.

Grebow is on the Board of Trustees of The George Washington University, and serves as the treasurer and director of the Theatre Development Fund. Since 1991, he has served as an appointee of Governor Mario Cuomo on the New York State Hospital Review and Planning Council, the state agency that regulates hospital and health care in New York. Grebow holds a degree in accounting and finance from The George Washington University.